

## CERTIFICATE OF MAILING

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Peter-Berghetti Orlando Lopez Reg. No. 42.345 46,880

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.

10/037,382

Confirmation No.

6806

Applicants

Joseph Claude Caci et al.

Filed

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Examiner

Michael J. Kyle

Title

PURCHASING AID LOGISTICS APPLIANCE

Docket No.

12078-129

Customer No.

26486

PERKINS, SMITH & COHEN, LLP One Beacon Street, 30<sup>th</sup> Floor Boston, MA 02108 (617) 854-4000

TO: Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

## **DECLARATION UNDER 37 CFR 1.132**

I, James D. Isaak, declare that I have the following background in the field of Computer Science:

I. <u>Education</u>:

BS, Computer Studies, MSEE, Computer Engineering, Stanford University (1972)

II. Work Experience:

2002-present: Assistant Professor, Southern New Hampshire University,

Manchester, NH

2000-2002: Adjunct Professor, Daniel Webster College and New Hampshire Community Technical College, Nashua, NH

1987-1999: Compaq Computer (Digital Equipment Corporation), Nashua, NH 1981-1987 Charles River Data Systems, Cambridge, MA

Continuing Education: Leadership New Hampshire, Class of 2002; Continuing technical development in HTML, XML, web technology, Visual Basic, Access, and Linux

I further declare that I am currently working as an Assistant Professor, Information Technology, Southern New Hampshire University, and am presently teaching courses on Information Technology Management, E-Commerce and Introduction to Information Technology. I also have about thirty years of industry experience with companies including Digital, Data General, Intel and IBM, much of which has been spent working on operating systems and standards, including security standards and mechanisms. I am a senior member of IEEE, current member of the Computer Society Board of Governors, and past member of the IEEE Board of Directors as well as various other roles. I received the Hans Karlsson award for my leadership of the POSIX Operating Systems standards at the national and international level.

I still further declare that there is an essential difference between access control and secure memory. Access control is a method by which you determine if access should be granted to a resource. Secure memory is a resource or product with specific protected content; in many cases the nature of the content dictates the protection mechanisms. Access control, on the contrary, is closely coupled with the concept of "authentication". One of the resources that might be protected by an access control mechanism is a secure memory product. If an access control mechanism is invalidly used, the invalid user might be able to gain access to, for example, a computer's non-secure memory, but the invalid user cannot access secure memory. A metric of quality for a secure memory is the level of resistance it has to having content accurately interpreted.

For example, if non-secure memory somehow becomes available to a user, the contents of the non-secure memory -- the binary signals -- could present patterns that those skilled in the art could use to decipher the remaining contents. For example, ASCII characters have particular standard codes that are readily discernable upon inspection. On the other hand, if a user gains access to secure memory – memory in which the binary signals in memory have been systematically changed according to a known methodology --

inspection of the memory patterns does not lead to deciphering the contents of memory unless the user understands the known methodology that led to the systematic change during the securing process. Thus, a simple access control mechanism does not allow a user to review secure memory unless the user additionally employs the known methodology to return the memory to its original state. Non-secure memory, in contrast, is in its original state.

For a second example, a set of files of CIA field operations has very sensitive content that should be stored in a "secure memory" product that would make unauthorized access extremely expensive if not impossible. Associated with this is some list of persons and the rights they have to any specific file. This list, also very sensitive, could be used as a part of an access control mechanism to determine if content of a file from the secure memory should be made available. Often the actual access control methods or processes are "public", but there are cases where the methods and the information about the personnel who have particular rights require protection. It is very likely in this scenario that the list of persons and rights would also be stored in a secure memory product. One of the problems with some forms of "access control" is that they reveal content that owners would like to protect. The key difference between "access control" and "secure memory" is the actual content of the memory.

I even further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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